

08-27-07

JFW

PTO/SB/21 (04-07)

TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission

415

Application Number

10/820,975

Filing Date

April 7, 2004

First Named Inventor

Santi, Daniel

Art Unit

1633

Examiner Name

Ileana Popa

Attorney Docket Number

020547-003700US

ENCLOSURES (Check all that apply)



Fee Transmittal Form (1 page + 1 copy)



Fee Attached



Amendment/Reply



After Final



Affidavits/declaration(s)



Extension of Time Request



Express Abandonment Request



Information Disclosure Statement



Certified Copy of Priority Document(s)



Reply to Missing Parts/ Incomplete Application



Reply to Missing Parts under 37 CFR 1.52 or 1.53



Drawing(s)



Licensing-related Papers



Petition



Petition to Convert to a Provisional Application



Power of Attorney, Revocation Change of Correspondence Address



Terminal Disclaimer



Request for Refund



CD, Number of CD(s) _____



Landscape Table on CD



After Allowance Communication to TC



Appeal Communication to Board of Appeals and Interferences,



Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)



Proprietary Information



Status Letter



Other Enclosure(s) (please identify below):

Return Postcard

PTO/SB08A and B

Supplementary European Search Report

13 Cited References

Remarks

The Commissioner is authorized to charge any additional fees to Deposit Account 20-1430.

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name

Townsend and Townsend and Crew LLP

Signature

Printed name

Randolph T. Apple

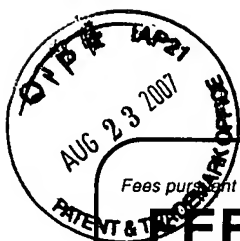
Date

August 23, 2007

Reg. No.

36,429

Express Mail Label No. EV 877 037 613 US



Effective on 12/08/2004.
Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

FEE TRANSMITTAL

For FY 2007

☒ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$) 180

Complete if Known

Application Number	10/820,975
Filing Date	April 7, 2004
First Named Inventor	Santi, Daniel
Examiner Name	Ileana Popa
Art Unit	1633
Attorney Docket No.	020547-003700US

METHOD OF PAYMENT (check all that apply)

☐ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): _____

☒ Deposit Account Deposit Account Number: 20-1430 Deposit Account Name: Townsend and Townsend and Crew LLP

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☐ Charge fee(s) indicated below, except for the filing fee

☒ Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17 ☒ Credit any overpayments

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

FEE CALCULATION**1. BASIC FILING, SEARCH, AND EXAMINATION FEES**

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Small Entity	Small Entity	Small Entity	Small Entity	Small Entity	Small Entity	
	Fee (\$)	Fee (\$)	Fee (\$)	Fee (\$)	Fee (\$)	Fee (\$)	
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

2. EXCESS CLAIM FEES

Fee Description	Small Entity	Small Entity
	Fee (\$)	Fee (\$)
Each claim over 20 (including Reissues)	50	25
Each independent claim over 3 (including Reissues)	200	100
Multiple dependent claims	360	180

Total Claims **Extra Claims** **Fee (\$)** **Fee Paid (\$)**

_____ -20 or HP = _____ x _____ = _____

HP = highest number of total claims paid for, if greater than 20

Indep. Claims **Extra Claims** **Fee (\$)** **Fee Paid (\$)**

_____ -3 or HP = _____ x _____ = _____

HP = highest number of independent claims paid for, if greater than 3

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee (\$)	Fee Paid (\$)
_____ - 100 = _____	/ 50 = _____	(round up to a whole number) x _____	= _____	

4. OTHER FEE(S)

Non-English Specification, \$130 fee (no small entity discount)

Other (e.g., late filing surcharge): Submission of Information Disclosure Stmt

180

SUBMITTED BY

Signature

Registration No. 36,429
(Attorney/Agent)

Telephone 650-326-2400

Name (Print/Type) Randolph T. Apple

Date August 23, 2007

Express Mail" Label No. EV 877 037 613 US

Date of Deposit August 23, 2007

PATENT

Attorney Docket No.: 020547-003700US

Client Reference No.: 010110.00



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Daniel SANTI et al.

Application No.: 10/820,975

Filed: April 7, 2004

For: SYNTHETIC GENES

Group Director: 1633

Confirmation No.: 9532

Examiner: Ileana Popa

Art Unit: 1633

SUPPLEMENTAL INFORMATION
DISCLOSURE STATEMENT UNDER
37 CFR §1.97 and §1.98

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

The references cited on attached form PTO/SB/08A and PTO/SB/08B are being called to the attention of the Examiner. Copies of the references 1-13 are enclosed.

Also enclosed is a copy of the Search/Examination report corresponding to the European application.

It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

As provided for by 37 CFR §1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

This IDS is being filed on or before payment of the issue fee.

08/27/2007 EAYALEW1 00000021 201430 10620975
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representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.


This IDS is being filed on or before payment of the issue fee.

CERTIFICATION

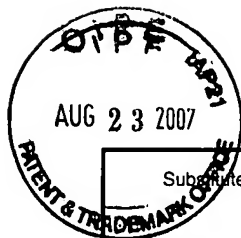
I hereby certify that each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement.

Please charge the IDS fee of \$180 to Deposit Account No. 20-1430. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,


Randolph T. Apple
Reg. No. 36,429

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61127882 v1



Substitute for form 1449A&B/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet

1

of

2

Complete if Known

Application Number	10/820,975
Filing Date	April 7, 2004
First Named Inventor	Santi, Daniel
Art Unit	1633
Examiner Name	Ileana Popa
Attorney Docket Number	020547-003700US

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number Kind Code ² (if known)			
	1	US 2002/0025561 A1	Feb. 28, 2002	Hodgson	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ²
		Country Code ³	Number ⁴	Kind Code ⁵ (if known)				
	2	EP	0 621 337	A1	10-26-2004	American Cyanamid Company		<input type="checkbox"/>
	3	PCT	WO 97/11086		03-27-1997	The General Hospital Corporation		<input type="checkbox"/>

NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	4	WILLIAMS, et al., "Design, synthesis and expression of a human interleukin-2 gene incorporating the codon usage bias found in highly expressed <i>Escherichia coli</i> genes" <u>Nucleic Acids Research</u> , 16(22): 10453-10467 (1998).	<input type="checkbox"/>
	5	MANDECKI, et al., "FokI method of gene synthesis" <u>Gene</u> , 68(1): 101-108 (1988).	<input type="checkbox"/>
	6	CELLO, et al., "Chemical Synthesis of Poliovirus cDNA: Generation of Infectious Virus in the Absence of Natural Template" <u>SCIENCE</u> , 297(5583): 1016-1018 (2002).	<input type="checkbox"/>
	7	PRESNELL, et al., "The design of synthetic genes" <u>Nucleic Acids Research</u> , 16(5): 1693-1702 (1988).	<input type="checkbox"/>
	8	RAGHAVA, et al., "GMAP: A Multi-Purpose "Computer Program to Aid Synthetic Gene Design, Cassette Mutagenesis and the Introduction of Potential Restriction Sites into DNA Sequences" <u>BioCOMPUTING</u> , 16(6): 1116-1123 (1994).	<input type="checkbox"/>
	9	HOOVER, et al., "DNAWorks: an automated method for designing oligonucleotides for PCR-based gene synthesis" <u>Nucleic Acids Research</u> , 30(10): E43.1-E43.7 (2002).	<input type="checkbox"/>
Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

Substitute for form 1449A&B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				Complete if Known	
				Application Number	10/820,975
				Filing Date	April 7, 2004
				First Named Inventor	Santi, Daniel
				Art Unit	1633
				Examiner Name	Ileana Popa
Sheet	2	of	2	Attorney Docket Number	020547-003700US

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²	
	10	CANE, et al., "Harnessing the Biosynthetic Code: Combinations, Permutations, and Mutations" <u>SCIENCE</u> , 282(5386): 63-68 (1998).	<input type="checkbox"/>	
	11	KODUMAL, et al., "DNA ligation by selection" <u>BioTechniques</u> , 37(1): 34-40 (2004)	<input type="checkbox"/>	
	12	KODUMAL, et al., "Total synthesis of long DNA sequences: Synthesis of a contiguous 32-kb polyketide synthase gene cluster" <u>PNAS</u> , 101(44): 15573-15578 (2004).	<input type="checkbox"/>	
	13	JAYARAJ, et al., "GeMS: an advanced software package for designing synthetic genes" <u>Nucleic Acids Research</u> , 33(9): 3011-3016 (2005).	<input type="checkbox"/>	

Examiner Signature		Date Considered	
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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